WEST Search History

DATE: Wednesday, March 19, 2003

Set Name side by side		Hit Count	Set Name result set
DB=JP	AB,EPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
L5	avian myeloblastosis adj 10 reverse transcriptae or amv adj1 reverse transcriptase or amv adj1 rt	7	L5
DB=US	SPT,PGPB; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
L4	L3 and 11	43	L4
L3	((435/194)!.CCLS.)	1114	L3
DB=US	SPT,PGPB,JPAB,EPAB,DWPI; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
L2	((435/194)!.IPC.)	0	L2
L1	(avian myeloblastosis virus adj10 reverse transcriptase) or amv adj1 reverse transcriptase or amv adj1 rt	2070	L1

END OF SEARCH HISTORY

WEST

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Search Results - Record(s) 1 through 20 of 43 returned.

1. Document ID: US 20030041345 A1

L4: Entry 1 of 43

File: PGPB

Feb 27, 2003

PGPUB-DOCUMENT-NUMBER: 20030041345

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030041345 A1

TITLE: Receptor-like protein kinases from nicotiana tabacum

PUBLICATION-DATE: February 27, 2003

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

RULE-47

Schmulling, Thomas Schafer, Silke Berlin Dusseldorf DE

DE

US-CL-CURRENT: 800/278; 435/194, 435/320.1, 435/419, 435/69.1, 536/23.2

2.	Document ID:	US 20030017480 A1

L4: Entry 2 of 43

File: PGPB

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWC Draw Desc Image

Jan 23, 2003

PGPUB-DOCUMENT-NUMBER: 20030017480

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20030017480 A1

TITLE: Novel genes encoding protein kinase/protein phosphatase

PUBLICATION-DATE: January 23, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Ota, Toshio	Tokyo		JP	
Isogai, Takao	Ibaraki		JP	
Nishikawa, Tetsuo	Tokyo		JP	
Hayashi, Koji	Osaka		JP	
Otsuka, Kaoru	Saitama		JP	
Yamamoto, Jun-Ichi	Chiba		JP	
Ishii, Shizuko	Chiba		JP	
Sugiyama, Tomoyasu	Tokyo		JP	
Wakamatsu, Ai	Chiba		JP	
Nagai, Keiichi	Tokyo		JP	
Otsuki, Tetsuji	Chiba		JP	
Funahashi, Shin-Ichi	Ibaraki		JP	
Senoo, Chiaki	Shizuoka		JP	
Nezu, Jun-Ichi	Ibaraki		JP	

US-CL-CURRENT: 435/6; 435/194, 435/196, 435/320.1, 435/325, 435/69.1, 536/23.2

Full Title Citation Front Review Classification Date Reference Sequences Attachments Claims KWC Draw Desc Image

3. Document ID: US 20020192790 A1

L4: Entry 3 of 43

File: PGPB

Dec 19, 2002

PGPUB-DOCUMENT-NUMBER: 20020192790

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020192790 A1

TITLE: Novel megakaryocytic protein tyrosine kinases

PUBLICATION-DATE: December 19, 2002

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

RULE-47

Ullrich, Axel

Portola Valley

CA

US

Gishizky, Mikhail

Palo Alto

CA

US

Sures, Irmingard

Munich

DE

US-CL-CURRENT: 435/194; 435/320.1, 435/325, 435/69.1, 536/23.2

Full Title Citation Front Review Classification Date Reference Sequences Attachments

KWMC | Draw. Desc | Image

4. Document ID: US 20020146798 A1

L4: Entry 4 of 43

File: PGPB

Oct 10, 2002

PGPUB-DOCUMENT-NUMBER: 20020146798

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020146798 A1

TITLE: Human MEKK proteins, corresponding nucleic acid molecules, and uses therefor

PUBLICATION-DATE: October 10, 2002

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

RULE-47

Johnson, Gary L.

Boulder

CO

0 US

US-CL-CURRENT: 435/194; 435/320.1, 435/325, 435/69.1, 536/23.2

Full Title Citation Front Review Classification Date Reference Sequences Attachments

KWC Draw Desc Image

5. Document ID: US 20020048802 A1

L4: Entry 5 of 43

File: PGPB

Apr 25, 2002

PGPUB-DOCUMENT-NUMBER: 20020048802

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020048802 A1

TITLE: PROKARYOTIC REVERSE TRANSCRIPTASE

PUBLICATION-DATE: April 25, 2002

INVENTOR-INFORMATION:

http://westbrs:8002/bin/gate.exe?f=TOC&s...vd2bqp.5&ref=4&dbname=USPT,PGPB&ESNAME=-

NAME
INOUYE, SUMIKO
HSU, MEI-YIN
INOUYE, MASAYORI
EAGLE, SUSAN
LAMPSON, BERT C.
SUN, JUNG
VALLEJO-RAMIREZ, JORGE

COUNTRY STATE CITY US BRIDGEWATER NJ NJ US HILLSBOROUGH US NJ BRIDGEWATER NJ US BRIDGEWATER US TNKNOXVILLE NJ US WOODBRIDGE US NJ NEWARK

US-CL-CURRENT: 435/194

Full Title Citation Front Review Classification Date Reference Sequences Attachments

KWIC Draw Desc Image

RULE-47

6. Document ID: US 20020040130 A1

L4: Entry 6 of 43

File: PGPB

Apr 4, 2002

PGPUB-DOCUMENT-NUMBER: 20020040130

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020040130 A1

TITLE: Polymorphic kinase anchor proteins and nucleic acids encoding the same

PUBLICATION-DATE: April 4, 2002

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

RULE-47

Braun, Andreas

San Diego

Full Title Citation Front Review Classification Date Reference Sequences Attachments

CA

US

US-CL-CURRENT: $\underline{536}/\underline{23.1}$; $\underline{435}/\underline{194}$, $\underline{435}/\underline{325}$, $\underline{435}/\underline{6}$, $\underline{435}/\underline{69.1}$, $\underline{435}/\underline{7.92}$, $\underline{536}/\underline{23.2}$, $\underline{800}/\underline{18}$

7. Document ID: US 20020012969 A1

L4: Entry 7 of 43

File: PGPB

Jan 31, 2002

KMC Draw Desc Image

PGPUB-DOCUMENT-NUMBER: 20020012969

PGPUB-FILING-TYPE: new

DOCUMENT-IDENTIFIER: US 20020012969 A1

TITLE: METHOD OF QUANTIFYING TUMOUR CELLS IN A BODY FLUID AND A SUITABLE TEST KIT

PUBLICATION-DATE: January 31, 2002

INVENTOR-INFORMATION:

NAME

CITY

STATE

COUNTRY

RULE-47

DAHM, MICHAEL W.

MUNCHEN

DE

US-CL-CURRENT: 435/91.1; 435/194, 435/91.2, 536/24.3, 536/24.33

Full Title Citation Front Review Classification Date Reference Sequences Attachments

KWIC Draw Desc Image

8. Document ID: US 6514736 B1

L4: Entry 8 of 43

File: USPT

Feb 4, 2003

US-PAT-NO: 6514736

DOCUMENT-IDENTIFIER: US 6514736 B1

TITLE: Kits for amplifying and detecting nucleic acid sequences

DATE-ISSUED: February 4, 2003

INVENTOR-INFORMATION:

STATE ZIP CODE COUNTRY CITY NAME Oakland CA Erlich; Henry A. Emeryville Horn; Glenn CA Richmond Saiki; Randall K. CA La Jolla Mullis; Kary B. CAOakland Gelfand; David H.

US-CL-CURRENT: 435/194; 435/6, 435/91.2, 536/23.1, 536/24.3

ABSTRACT:

The present invention is directed to a process for amplifying any target nucleic acid sequence contained in a nucleic acid or mixture thereof using a thermostable enzyme. The process comprises treating separate complementary strands of the nucleic acid with a molar excess of two oligonucleotide primers, extending the primers with a thermostable enzyme to form complementary primer extension products which act as templates for synthesizing the desired nucleic acid sequence, and detecting the sequence so amplified. The steps of the reaction can be repeated as often as desired and involve temperature cycling to effect hybridization, promotion of activity of the enzyme, and denaturation of the hybrids formed.

9 Claims, 0 Drawing figures Exemplary Claim Number: 1

Full Title Citation Front Review Classification Da	te Reference Sequences Attachments	KMMC Draw Desc Image
9. Document ID: US 6436671 B1 L4: Entry 9 of 43	File: USPT	Aug 20, 2002

US-PAT-NO: 6436671

DOCUMENT-IDENTIFIER: US 6436671 B1

TITLE: Lipid kinase

DATE-ISSUED: August 20, 2002

INVENTOR-INFORMATION:

NAME CITY STATE ZIP CODE COUNTRY
Domin; Jan
London GB
Warerfield; Michael Derek London GB

US-CL-CURRENT: $\underline{435}/\underline{69.1}$; $\underline{435}/\underline{194}$, $\underline{435}/\underline{320.1}$, $\underline{435}/\underline{455}$, $\underline{435}/\underline{70.1}$, $\underline{536}/\underline{23.5}$

ABSTRACT:

The invention relates to a novel human class II PI3-kinase and in particular the sequence of the isolated nucleic acid molecule and the encoded amino acid sequence. The novel human PI3-kinase is termed PI3K-C2.alpha. and has unique biochemical properties that characterize and distinguish it from known PI3-kinases. These include, amongst other things, resistance to the PI3-kinase inhibitors Wortmannin and LY294000, the lack of a p85 binding site, a divergent amino terminus and the absence of a polyproline motif which is typical of known type II PI3-kinases.

16 Claims, 12 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 16 Title Citation Front Review Classification Date Reference Sequences Attachments KWC Draw Desc Image

10. Document ID: US 6399320 B1

L4: Entry 10 of 43

File: USPT

Jun 4, 2002

US-PAT-NO: 6399320

DOCUMENT-IDENTIFIER: US 6399320 B1

TITLE: Modified DNA-polymerase from carboxydothermus hydrogenoformans and its use for coupled reverse transcription and polymerase chain reaction

DATE-ISSUED: June 4, 2002

INVENTOR-INFORMATION:

ZIP CODE COUNTRY STATE CITY NAME DE Polling Markau; Ursula DE Antdorf Ebenbichler; Christine DE Achhammer; Gunthar Penzberg DE Ankenbauer; Waltraud Penzberg

US-CL-CURRENT: 435/15; 435/194, 435/91.1, 435/91.2, 435/91.5, 536/23.1, 536/23.2

ABSTRACT:

A purified DNA polymerase exhibiting reverse transcriptase activity in the presence of magnesium ions and/or manganese ions having reduced or no 5'-3'-exonuclease activity and substantially no RNaseH activity and obtainable from Carboxydothermus hydrogenoformans.

5 Claims, 9 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 7

Full Title Citation Front Review Classification D	ate Reference Sequences Attachments	KNMC Draw, Desc Image
,		
11. Document ID: US 6331621 B1		
L4: Entry 11 of 43	File: USPT	Dec 18, 2001

US-PAT-NO: 6331621

DOCUMENT-IDENTIFIER: US 6331621 B1

TITLE: Isolated nucleic acid molecules which encode activin-receptor like kinases, expression vectors and cells containing these

DATE-ISSUED: December 18, 2001

INVENTOR-INFORMATION:

ZIP CODE COUNTRY STATE CITY NAME SE Uppsala Miyazono; Kohei SE Uppsala ten Dijke; Peter SE Uppsala Franzen; Petra SE Yamashita; Hidetoshi Uppsala SE Uppsala Heldin; Carl-Henrik

US-CL-CURRENT: $\underline{536}/\underline{23.2}$; $\underline{435}/\underline{194}$, $\underline{435}/\underline{252.1}$, $\underline{435}/\underline{320.1}$, $\underline{435}/\underline{325}$, $\underline{435}/\underline{69.1}$, $\underline{530}/\underline{350}$, $\underline{530}/\underline{357}$

ABSTRACT:

The invention involves nucleic acid molecules which encode activin like kinases, expression vectors, and cell lines.

10 Claims, 14 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 10

Full Title Citation Front Review Classification Date Reference Sequences Attachments

KWMC | Draw Desc | Image

12. Document ID: US 6326469 B1

L4: Entry 12 of 43

File: USPT

Dec 4, 2001

US-PAT-NO: 6326469

DOCUMENT-IDENTIFIER: US 6326469 B1

TITLE: Megakaryocytic protein tyrosine kinases

DATE-ISSUED: December 4, 2001

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Ullrich; Axel

Portola Valley

CA

Gishizky; Mikhail

Palo Alto

CA

DE

Sures; Irmingard

Munich

US-CL-CURRENT: 530/350; 435/194, 435/69.1, 435/69.7

ABSTRACT:

The present invention relates to novel cytoplasmic tyrosine kinases isolated from megakaryocytes (megakaryocyte kinases or MKKs) which are involved in cellular signal transduction pathways and to the use of these novel proteins in the diagnosis and treatment of disease. The present invention further relates to specific megakaryocyte kinases, designated MKK1, MKK2 and MKK3, and their use as diagnostic and therapeutic agents.

11 Claims, 22 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 26

Full Title Citation Front Review Classification Date Reference Sequences Attachments

KMMC | Draw. Desc | Image

13. Document ID: US 6312934 B1

L4: Entry 13 of 43

File: USPT

Nov 6, 2001

US-PAT-NO: 6312934

DOCUMENT-IDENTIFIER: US 6312934 B1

TITLE: Human MEKK proteins, corresponding nucleic acid molecules, and uses therefor

DATE-ISSUED: November 6, 2001

INVENTOR-INFORMATION:

NAME CITY

STATE

ZIP CODE COUNTRY

Johnson; Gary L.

Boulder

CO

US-CL-CURRENT: $\underline{435/194}$; $\underline{435/252.3}$, $\underline{435/320.1}$, $\underline{435/325}$, $\underline{435/6}$, $\underline{536/23.2}$

Record List Display ABSTRACT:

> Isolated nucleic acid molecules encoding human MEKK proteins, and isolated MEKK proteins, are provided. The invention further provides antisense nucleic acid molecules, recombinant expression vectors containing a nucleic acid molecule of the invention, host cells into which the expression vectors have been introduced and nonhuman transgenic animals carrying a human MEKK transgene. The invention further provides human MEKK fusion proteins and anti-human MEKK antibodies. Methods of using the human MEKK proteins and nucleic acid molecules of the invention are also disclosed, including methods for detecting human MEKK activity in a biological sample, methods of modulating human MEKK activity in a cell, and methods for identifying agents that modulate the activity of human MEKK.

29 Claims, 35 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 35

KWIC Draw Desc Image Full Title Citation Front Review Classification Date Reference Sequences Attachments

14. Document ID: US 6242235 B1

L4: Entry 14 of 43

File: USPT

Jun 5, 2001

US-PAT-NO: 6242235

DOCUMENT-IDENTIFIER: US 6242235 B1

TITLE: Polymerase stabilization by polyethoxylated amine surfactants

DATE-ISSUED: June 5, 2001

INVENTOR-INFORMATION:

NAME

CITY

STATE

ZIP CODE

COUNTRY

Shultz; John W.

Verona

WI

Huang; Fen

Madison

WI

US-CL-CURRENT: 435/194; 435/188

ABSTRACT:

The present invention provides methods and compositions for protein stabilization, particularly the stabilization of polymerases in aqueous solutions with cationic surfactants. The present invention further provides cationic surfactants, including polyethoxylated amines, that stabilize thermostable and thermolabile enzymes in solution. These surfactants stabilize the activity of various enzymes, including thermostable DNA polymerases, thermolabile DNA polymerases and reverse transcriptases.

23 Claims, 0 Drawing figures Exemplary Claim Number: 1

Full Title Citation Front Review Classification Date Reference Sequences Attachments KMC Draw Desc Image

15. Document ID: US 6207814 B1

L4: Entry 15 of 43

File: USPT

Mar 27, 2001

US-PAT-NO: 6207814

DOCUMENT-IDENTIFIER: US 6207814 B1

TITLE: Activin receptor-like kinases, ALK-3 and ALK-6, and nucleic acids encoding them

DATE-ISSUED: March 27, 2001

INVENTOR - INFORMATION:

Record List Display http://westbrs:8002/bin/gate.exe?f=TOC&s...vd2bqp.5&ref=4&dbname=USPT,PGPB&ESNAME=-

COUNTRY ZIP CODE STATE CITY NAME SE Uppsala Miyazono; Kohei SE Uppsala ten Dijke; Peter SE Uppsala Franzen; Petra SE Uppsala Yamashita; Hidetoshi SE Uppsala Heldin; Carl-Henrik

US-CL-CURRENT: 536/23.5; 435/194, 530/350

ABSTRACT:

The invention relates to two members of the receptor family referred to as activin-like kinases. These two members are referred to as ALK-3 and ALK-6. The proteins have activin/TGF-.beta. type I receptor functionality, and may have a serine/threonine kinase domain, a DFKSRN or DLKSKN sequence in subdomain V1B, and/or a GTKRYM sequence in subdomain VIII.

5 Claims, 14 Drawing figures Exemplary Claim Number: 1,3 Number of Drawing Sheets: 10

Full Title Citation Front Review Classification Date	Reference Sequences Attachments	KWMC Draw, Desc Image
16. Document ID: US 6197563 B1 L4: Entry 16 of 43	File: USPT	Mar 6, 2001

US-PAT-NO: 6197563

DOCUMENT-IDENTIFIER: US 6197563 B1

TITLE: Kits for amplifying and detecting nucleic acid sequences

DATE-ISSUED: March 6, 2001

INVENTOR - INFORMATION:

COUNTRY STATE ZIP CODE CITY NAME CA Erlich; Henry A. Oakland CA Emeryville Horn: Glenn Richmond Saiki; Randall K. La Jolla CA Mullis; Kary B. CA Oakland Gelfand; David H.

US-CL-CURRENT: 435/194; 435/91.2, 536/23.1

ABSTRACT:

The present invention is directed to a process for amplifying any target nucleic acid sequence contained in a nucleic acid or mixture thereof using a thermostable enzyme. The process comprises treating separate complementary strands of the nucleic acid with a molar excess of two oligonucleotide primers, extending the primers with a thermostable enzyme to form complementary primer extension products which act as templates for synthesizing the desired nucleic acid sequence, and detecting the sequence so amplified. The steps of the reaction can be repeated as often as desired and involve temperature cycling to effect hybridization, promotion of activity of the enzyme, and denaturation of the hybrids formed.

18 Claims, 0 Drawing figures Exemplary Claim Number: 1

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17. Document ID: US 6183967 B1

Feb 6, 2001 File: USPT L4: Entry 17 of 43

US-PAT-NO: 6183967

DOCUMENT-IDENTIFIER: US 6183967 B1

TITLE: Nucleic acid ligand inhibitors to DNA polymerases

DATE-ISSUED: February 6, 2001

INVENTOR - INFORMATION:

ZIP CODE COUNTRY STATE CITY NAME

CO Boulder Jayasena; Sumedha CO Boulder Gold; Larry

US-CL-CURRENT: 435/6; 435/194, 435/91.2, 536/23.1, 536/25.4

ABSTRACT:

This invention discloses high-affinity oligonucleotide ligands to the thermostable Taq polymerase, Tth polymerase and TZ05 polymerase. Specifically, this invention discloses DNA ligands having the ability to bind to the Taq, Tth and TZ05 polymerases and the methods for obtaining such ligands. The ligands are capable of inhibiting polymerases at any predetermined temperature.

21 Claims, 82 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 40

Full Title Citation Front Review Classification Date Reference Sequences Attachments

KWWC Draw, Desc Image

18. Document ID: US 6140086 A

L4: Entry 18 of 43

File: USPT

Oct 31, 2000

US-PAT-NO: 6140086

DOCUMENT-IDENTIFIER: US 6140086 A

TITLE: Methods and compositions for cloning nucleic acid molecules

DATE-ISSUED: October 31, 2000

INVENTOR-INFORMATION:

ZIP CODE COUNTRY NAME CITY STATE

21784 MD Fox; Donna K. Sykesville

North Potomac MD 20878 Chatterjee; Deb K.

US-CL-CURRENT: $\underline{435}/\underline{91.41}$; $\underline{435}/\underline{184}$, $\underline{435}/\underline{194}$, $\underline{435}/\underline{471}$, $\underline{435}/\underline{91.1}$, $\underline{435}/\underline{91.2}$, $\underline{435}/\underline{91.5}$, $\underline{435}/\underline{91.52}$

ABSTRACT:

The present invention is directed generally to methods facilitating the cloning of nucleic acid molecules. In particular, the invention relates to the use of polymerase inhibitors, including but not limited to anti-polymerase antibodies (such as anti-Taq antibodies) and fragments thereof, to inactivate residual polymerase activity remaining after the amplification (particularly via PCR) of a target nucleic acid molecule. The invention further provides compositions, particularly storage-stable compositions, comprising one or more components, such as one or more restriction endonucleases and one or more polymerase inhibitors, that are useful in cloning amplified or synthesized nucleic acid molecules by the above-described methods. The invention also relates to nucleic acid molecules produced by these methods, and to genetic constructs (such as vectors) and host cells comprising these nucleic acid molecules.

27 Claims, 1 Drawing figures

Exemplary Claim Number: 21 Number of Drawing Sheets: 1

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Kill

KNMC | Draw. Desc | Image

19. Document ID: US 6096545 A

L4: Entry 19 of 43

File: USPT

Aug 1, 2000

US-PAT-NO: 6096545

DOCUMENT-IDENTIFIER: US 6096545 A

TITLE: Phosphate starvation-inducible proteins

DATE-ISSUED: August 1, 2000

INVENTOR-INFORMATION:

NAME

CITY

STATE ZIP CODE

COUNTRY

Lefebvre; Daniel D. Malboobi; Mohammed A.

Kingston Kingston CA

CA

US-CL-CURRENT: $\frac{435}{410}$; $\frac{435}{194}$, $\frac{435}{252.33}$, $\frac{435}{320.1}$, $\frac{536}{23.1}$, $\frac{536}{23.2}$, $\frac{536}{23.6}$

ABSTRACT:

This invention provides proteins, especially protein kinases and glucosidases, which are expressed under conditions of phosphate deprivation. Further provided are nucleic acids and nucleic acid constructs encoding these proteins, cells containing the nucleic acids described and transgenic photosynthetic organisms with altered phosphate-inducible enzyme activity.

25 Claims, 33 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 28

Full Title Citation Front Review Classification Date Reference Sequences Attachments

KNMC Draw Desc Image

20. Document ID: US 6063608 A

L4: Entry 20 of 43

File: USPT

May 16, 2000

US-PAT-NO: 6063608

DOCUMENT-IDENTIFIER: US 6063608 A

TITLE: Cloned genes encoding reverse transcriptase lacking RNase H activity

DATE-ISSUED: May 16, 2000

Kotewicz; Michael Leslie

INVENTOR-INFORMATION:

Gerard; Gary Floyd

NAME CITY STATE ZIP CODE COUNTRY

Columbia MD

Frederick MD

US-CL-CURRENT: 435/194; 435/252.3, 435/252.33, 435/320.1, 435/475, 435/69.1, 435/91.1,

435/91.2, 435/975, 536/23.2

ABSTRACT:

The invention relates to a gene which encodes reverse transcriptase having DNA polymerase activity and substantially no RNase H activity. The invention also relates to vectors containing the gene and hosts transformed with the vectors of the invention. The invention also

relates to a method of producing reverse transcriptase having DNA polymerase activity and substantially no RNase H activity by expressing the reverse transcriptase genes of the present invention in a host. The invention also relates to a method of producing cDNA from mRNA using the reverse transcriptase of the invention. The invention also relates to a kit for the preparation of cDNA from mRNA comprising the reverse transcriptase of the invention.

196 Claims, 6 Drawing figures Exemplary Claim Number: 1 Number of Drawing Sheets: 8

Full Title Citation Front Review Classification Da	te Reference Sequences Attachments KMC Draw. Desc Image
General	te Collection Print
Terms	Documents
L3 and l1	43

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Search Results - Record(s) 1 through 7 of 7 returned.

1. Document ID: EP 1191102 A2

L5: Entry 1 of 7

File: EPAB

Mar 27, 2002

PUB-NO: EP001191102A2

DOCUMENT-IDENTIFIER: EP 1191102 A2

TITLE: Method for producing an active heterodimeric AMV-RT in prokaryotic cells

PUBN-DATE: March 27, 2002

INVENTOR-INFORMATION:

COUNTRY NAME DE SOBEK, HARALD DR DΕ MUELLER, RAINER DR DE SCHMIDT, MANFRED DE FREY, BRUNO DR DE SUPPMANN, BERNHARD DR DE SCHMUCK, RAINER DR DE THALHOFER, JOHANN-PETER DR ΑT PALLUA, PETER DR DE PAJATSCH, MARKUS DR

INT-CL (IPC): $\underline{\text{C12}} \ \underline{\text{N}} \ \underline{15/54}$; $\underline{\text{C12}} \ \underline{\text{N}} \ \underline{9/12}$; $\underline{\text{C12}} \ \underline{\text{N}} \ \underline{15/70}$; $\underline{\text{C12}} \ \underline{\text{Q}} \ \underline{1/48}$

EUR-CL (EPC): C12N009/12

ABSTRACT:

CHG DATE=20020503 STATUS=0> The heterologous expression of the reverse transcriptase from the Avian Myeloblastosis Virus (AMV-RT) in prokaryotic cells and in particular Escherichia coli (E. coli) is described in the present invention. The invention also includes certain measures to simplify the purification of the heterodimeric AMV-RT.

Full Title Citation Front Review Classification Dat	te Reference Sequences Attachments	KMMC Draw, Desc Image
2. Document ID: WO 9847912 A1	File: EPAB	Oct 29, 1998

PUB-NO: WO009847912A1

DOCUMENT-IDENTIFIER: WO 9847912 A1

TITLE: METHODS FOR THE PRODUCTION OF ASLV REVERSE TRANSCRIPTASES COMPOSED OF MULTIPLE SUBUNITS

PUBN-DATE: October 29, 1998

INVENTOR-INFORMATION:

NAME

COUNTRY

GERARD, GARY F SMITH, MICHAEL D

CHATTERJEE, DEB K

INT-CL (IPC): $\underline{\text{C07}}$ K $\underline{1}/\underline{\text{00}}$; $\underline{\text{C12}}$ P $\underline{\text{21}}/\underline{\text{04}}$; $\underline{\text{C12}}$ P $\underline{\text{21}}/\underline{\text{06}}$

EUR-CL (EPC): C12N009/12

ABSTRACT:

CHG DATE=19990905 STATUS=0>The present invention is generally related to compositions and methods for the reverse transcription of nucleic acid molecules, especially messenger RNA molecules. Specifically, the invention relates to compositions comprising mixtures of polypeptides having reverse transcriptase (RT) activity, and to methods of producing, amplifying or sequencing nucleic acid molecules (particularly cDNA molecules) using these compositions or polypeptides, particularly at temperatures above about 55 DEG C. The invention also relates to nucleic acid molecules produced by these methods, to vectors and host cells comprising these nucleic acid molecules, and to the use of such nucleic acid molecules to produce desired polypeptides. The invention also relates to methods for producing Rous Sarcoma Virus (RSV) and Avian Myeloblastosis Virus (AMV) RTs or other Avian Sarcoma-Leukosis Virus (ASLV) RTs (alpha and/or beta subunits thereof), to isolated nucleic acid molecules encoding such RSV RT, AMV RT or other ASLV RT subunits, to vectors and host cells comprising these isolated nucleic acid molecules and to RSV RT, AMV RT and other ASLV RT subunits produced by these methods. The invention further relates to nucleic acid molecules encoding recombinant heterodimeric RT holoenzymes, particularly heterodimeric RSV RTs, AMV RTs or other ASLV RTs (which may be alpha beta RTs, beta beta RTs, or alpha RTs), vectors (particularly baculovirus vectors) and host cells (particularly insect and yeast cells) comprising these nucleic acid molecules, methods for producing these heterodimeric RTs and heterodimeric RTs produced by these methods. The invention also relates to kits comprising the compositions, polypeptides, or RSV RTs, AMV RTs or other ASLV RTs of the invention.

Full	Title	Citation Fro	nt Revi	ew Classification	Date	Reference	Sequences	Attachments	KMMC Draw. Deso Imag	e
				~						
;····1	2	Document	· ID· 1X	/O 200071739) A 1 1	EP 11856	80 A1 AU	200050361 A	A	

3. Document ID: WO 2000/1/39 AT EP 1185680 AT AU 200050361 A

L5: Entry 3 of 7

File: DWPI

Nov 30, 2000

DERWENT-ACC-NO: 2001-032045

DERWENT-WEEK: 200225

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TITLE: Bacillus stearothermophilus template-dependent DNA polymerase for preparing cDNA molecule from RNA template comprises reverse transcriptase activity in the presence of magnesium ions and absence of manganese ions

INVENTOR: SCHANKE, J E T

PRIORITY-DATA: 1999US-135437P (May 22, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 200071739 A1	November 30, 2000	E	037	C12P019/34
EP 1185680 A1	March 13, 2002	E	000	C12P019/34
AU 200050361 A	December 12, 2000		000	C12P019/34

INT-CL (IPC): C12 P 19/34

ABSTRACTED-PUB-NO: WO 200071739A

BASIC-ABSTRACT:

NOVELTY - A purified thermostable template-dependent DNA polymerase (I) from Bacillus stearothermophilus comprising reverse transcriptase (RT) activity in the presence of magnesium ions at a concentration of 1 mM and in the substantial absence of manganese ions, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) preparing (M1) one or more cDNA molecules from one or more RNA templates comprising mixing the templates with one or more of (I) and incubating the mixture to synthesize one or more cDNA molecules complementary to all or a portion of the templates;
- (2) amplifying (M2) a nucleic acid molecule comprising mixing an RNA template with a composition comprising one or more of (I) and one or more DNA polymerases to form a mixture and

incubating the mixture to amplify a DNA molecule complementary to all or a portion of the RNA template; and

(3) a kit for synthesizing or amplifying a DNA molecule comprising (I).

USE - (I) is useful for preparing one or more cDNA molecules from one or more RNA templates and for amplifying a nucleic acid (claimed).

ADVANTAGE - Since the enzymes are thermostable, they are suitable for use in biochemical applications using higher temperatures than many other reverse transcriptases of Avian myeloblastosis virus (AMV-RT) or Moloney murine leukemia virus (MMLV-RT).

Full Title Citation Front Review Classification Date Reference Sequences Attachments

KMC Draw, Desc Image

4. Document ID: WO 9402633 A1 US 5830646 A EP 651822 A1 EP 672130 A1 EP 651822 B1 DE 69302276 E JP 08500731 W DE 4495155 T JP 2800850 B2

L5: Entry 4 of 7

File: DWPI

Feb 3, 1994

DERWENT-ACC-NO: 1994-048890

DERWENT-WEEK: 199851

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TITLE: Method for diagnosing neoplasia, e.g. carcinoma - utilises unequal splicing of CD44 gene in cancer patients compared to controls

INVENTOR: AMIN, H P; AUFDERMARSH, C A; MATSUMURA, Y; TARIN, D; BARIN, D

PRIORITY-DATA: 1992GB-0026165 (December 16, 1992), 1992GB-0015498 (July 21, 1992), 1992GB-0024386 (November 20, 1992), 1993US-0092144 (July 14, 1993)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9402633 A1	February 3, 1994	E	042	C12Q001/58
US 5830646 A	November 3, 1998		000	C12Q001/68
EP 651822 A1	May 10, 1995	E	000	C12Q001/58
EP 672130 A1	September 20, 1995	E	000	C12N015/06
EP 651822 B1	April 17, 1996	E	022	C12Q001/58
DE 69302276 E	May 23, 1996		000	C12Q001/58
JP 08500731 W	January 30, 1996		038	C12Q001/68
DE 4495155 T	July 24, 1997		000	C08L027/18
JP 2800850 B2	September 21, 1998		017	C12Q001/68

ABSTRACTED-PUB-NO: EP 651822B

BASIC-ABSTRACT:

A method for diagnosing neoplasia comprises analysing expression of the CD44 gene in a sample. Also claimed are (1) a CD44 exon, overexpressed in tumours but not in normal tissues and located in the vicinity of exons 7-9. (2) a peptide corresp. to the CD44 exon, its allele variants and phosphonylation and glycosylation prods.; and fragments; and (3) antibodies (Abs) to the peptide of (2), its allele variants, glycosylation prods. or fragments.

USE - This method allows immunological diagnosis of neoplasia based on over-expression of the CD44 exon, using body tissue or fluid or waste prod. Solid tumours, esp. malignant tumours such as carcinomas can be accurately detected.

In an example, urine specimens from 90 pts. (44 with biopsy-proven bladder cancer, 46 from pts. with non-neoplastic inflammation of bladder and normal volunteers) were recovered. The samples were centrifuged and MRNA extraction performed, with oligo dT cellulose tablets. cDNA was synthesised using AMV reverse transcriptase (RT). The completed cDNA soln. was divided equally into 2 tubes, one for PCR with E1 and E5 to amplify the particular cDNA transcript for

diagnosis, the other for PCR with P1 and P4 to amplify the standard form of CD44 (an internal control). When all exons were expressed (bladder cancer) using E1 and E4 produced a 735 bp band on an agarose gel loaded with PCR prods. There was no band in tracks contg. cDNA from normal urine or bladder inflammation. A 482 bp band was obtained in all cases with P1 and P4, indicating that diagnostically sig. differences between urine from patients with bladder cancer and controls was not due to unequal loading of tracks but due to alternative splicing of the CD44 gene.

ABSTRACTED-PUB-NO:

US 5830646A EQUIVALENT-ABSTRACTS:

A method of diagnosis of neoplasia, which method comprises analysing expression of the CD44 gene in a sample.

A method for diagnosing neoplasia comprises analysing expression of the CD44 gene in a sample. Also claimed are (1) a CD44 exon, overexpressed in tumours but not in normal tissues and located in the vicinity of exons 7-9. (2) a peptide corresp. to the CD44 exon, its allele variants and phosphonylation and glycosylation prods.; and fragments; and (3) antibodies (Abs) to the peptide of (2), its allele variants, glycosylation prods. or fragments.

USE - This method allows immunological diagnosis of neoplasia based on over-expression of the CD44 exon, using body tissue or fluid or waste prod. Solid tumours, esp. malignant tumours such as carcinomas can be accurately detected.

In an example, urine specimens from 90 pts. (44 with biopsy-proven bladder cancer, 46 from pts. with non-neoplastic inflammation of bladder and normal volunteers) were recovered. The samples were centrifuged and MRNA extraction performed, with oligo dT cellulose tablets. cDNA was synthesised using AMV reverse transcriptase (RT). The completed cDNA soln. was divided equally into 2 tubes, one for PCR with E1 and E5 to amplify the particular cDNA transcript for diagnosis, the other for PCR with P1 and P4 to amplify the standard form of CD44 (an internal control). When all exons were expressed (bladder cancer) using E1 and E4 produced a 735 bp band on an agarose gel loaded with PCR prods. There was no band in tracks contg. cDNA from normal urine or bladder inflammation. A 482 bp band was obtained in all cases with P1 and P4, indicating that diagnostically sig. differences between urine from patients with bladder cancer and controls was not due to unequal loading of tracks but due to alternative splicing of the CD44 gene.

WO 9402633A

Full Title Montation #Front Review Classification Date Reference Sequences Attachments KWIC Draw Desc Clip Img | Image

5. Document ID: JP 04349885 A

L5: Entry 5 of 7

File: DWPI

Dec 4, 1992

DERWENT-ACC-NO: 1993-022708

DERWENT-WEEK: 199303

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TITLE: Envelope region nucleic acid fragment - for type C hepatitis virus (I), for producing vaccine

PRIORITY-DATA: 1991JP-0152169 (May 29, 1991)

PATENT-FAMILY:

 PUB-NO
 PUB-DATE
 LANGUAGE
 PAGES
 MAIN-IPC

 JP 04349885 A
 December 4, 1992
 013
 C12N015/10

INT-CL (IPC): C12N 15/10; C12N 15/11; C12Q 1/68; C12Q 1/70

ABSTRACTED-PUB-NO: JP 04349885A

BASIC-ABSTRACT:

A DNA fragment having the specified base sequence (claimed in the specification or a base sequence complement to it, or a RNA fragment expressed by a sequence in which U is replaced by T in the above sequence, a DNA or RNA oligomer consisting of a fragment of at least 8 bases long present in the fragment, the detection of (I) in which DNA or RNA probe is prepd. by labelling the above oligomer with a labelling cpd. is used.

USE/ADVANTAGE - The fragment can be used for the prepn. of a vaccine useful for the prevention of (I).

In an example, Nucleic acid is prepd. from the serum of non-A non-B hepatitis patients and cDNA is prepd. from it by $\underline{\mathsf{AMV}}$ reverse transcriptase in the presence of a random primer. The envelope region nucleic acid of (I) is amplified against the cDNA soln. Complete double-stranded DNA is prepd. by using E coli DNA polymerase and the both ends of it is smoothened. It is introduced in E coli JM109 and a single-stranded DNA is prepd. from the transformant and its base sequence is determined.

Full Title Citation Front Review Classification Date Reference Sequences Attachments

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6. Document ID: JP 03209319 A

L5: Entry 6 of 7

File: DWPI

Sep 12, 1991

DERWENT-ACC-NO: 1991-314165

DERWENT-WEEK: 199143

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TITLE: Use of pelargonidin and its derivs. - as reverse transcriptase inhibitors for treating retroviral infections e.g. AIDs or human T-cell lymphotropic virus type I

PRIORITY-DATA: 1990JP-0003123 (January 9, 1990)

PATENT-FAMILY:

PUB-NO PUB-DATE

LANGUAGE

PAGES MAIN-IPC

000

JP 03209319 A September 12, 1991

INT-CL (IPC): A61K 31/35; C07D 311/62; C07H 17/06; C12N 9/99

ABSTRACTED-PUB-NO: JP 03209319A

BASIC-ABSTRACT:

Anti-retroviral agents contg. as active component pelargonidin or its deriv. of formula (I) are new; where R1 and R2=H, hydrocarbon gp. (e.g. lower alkyl), or glycoside-forming gp. of 6-membered pyranose-type hexose or 5-membered furanose-type pentose; X =acid residue (e.g. Cl-).

USE/ADVANTAGE - (I) inhibit reverse transcriptase of retro-viruses and prevent their cytopathogenic action in the virus-infected cells. (I) are useful in prevention or treatment of viral diseases caused by retro-viruses, e.g. AIDS (by human immunodeficiency virus), ATL (by human T-cell lymphotropic virus type I). The agents may be applied at any stage (i.e. before the infection, as a carrier after the infection, manifestation of the symptom). (I) may be formulated into powder, suspension, soln., syrup, emulsion, ointment or cream as 0.1%-100% prepn. and applied parenterally (i.v., s.c., i.m., i.p.) or orally or locally (rhinally, rectally, vaginally) at a dose of 1 - 100 mg/kg. (I) can be isolated and purified from plants or prepd. by syntheses (J.Chem.Soc., 1928 (2), 1460 (1928)).

In an example, inhibition of pelargonidin chloride (PC) against reverse transcriptase (RT) derived from avianmyeloblastosis virus (AMV). The RT activity was determined by up-take of 3H-dTTP into p(dT)12-18 on poly(rA) as template. The reaction medium: 1M tris-HCl (pH 7.8) 2.5 micro l, 1M Mg(OAc) 2 0.5 micro l, 1M NaCl 2.5 micro l, 0.5M dithiothreitol 0.5 micro l, 5mM 3H-dTTP 1.0 micro l, 5U/ml poly(rA)-o(dT)12-18 1.0micro l, $\frac{AMV-RT}{I}$ 1.0 micro l, soln. of (I) 2.0 micro l, and H2O 39 micro l, total 50 micro l. The soln. of (I) was made with 10% DMSO. The reaction was carried out at 37 deg. C for 30 mins. and terminated with 50 micro l, 10% CF3COOH (30 mins. stirring under ice-cooling). The product was filtered through a glass filter, washed with 5% CF3COOH and EtOH, dried and counted by a scintillation counter. The 50% inhibition rate was about 20 micro g/ml.

Full Title Citation Front Review Classification Date Reference Sequences Attachments

KMC Draw Desc Image

7. Document ID: EP 61740 A JP 2554612 B2 DE 3112338 A WO 8203408 A JP 58500389 W EP 61740 B DE 3277915 G DE 3112338 C2

L5: Entry 7 of 7

File: DWPI

Oct 6, 1982

DERWENT-ACC-NO: 1982-86148E

DERWENT-WEEK: 199650

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TITLE: Prodn. of hybrid DNA coding for hepatitis A antigen - by cloning complementary DNA in bacterial plasmid

INVENTOR: DEINHARDT, F; VON DER HELM, K; WINNACKER, E; VONDERHELM, K; WINNACKER, E L

PRIORITY-DATA: 1981DE-3112338 (March 28, 1981)

PATENT-FAMILY:

PAIENI-PANIDI.	DID DATE	LANGUAGE	PAGES	MAIN-IPC
PUB-NO	PUB-DATE			
EP 61740 A	October 6, 1982	G	018	
JP 2554612 B2	November 13, 1996		006	C12N015/09
DE 3112338 A	October 7, 1982		000	
WO 8203408 A	October 14, 1982	G	000	
JP 58500389 W	March 17, 1983		000	
EP 61740 B	January 7, 1988	G	000	
DE 3277915 G	February 11, 1988		000	
DE 3112338 C2	February 23, 1995		007	C12N015/51

INT-CL (IPC): $\underline{A01}$ \underline{K} $\underline{39/29}$; $\underline{A61}$ \underline{K} $\underline{39/29}$; $\underline{C07}$ \underline{G} $\underline{7/00}$; $\underline{C07}$ \underline{H} $\underline{21/04}$; $\underline{C12}$ \underline{N} $\underline{1/20}$; $\underline{C12}$ \underline{N} $\underline{15/51}$; $\underline{C12}$ \underline{P} $\underline{19/34}$; $\underline{C12}$ \underline{P} $\underline{21/00}$; $\underline{C12}$ \underline{Q} $\underline{1/00}$; $\underline{C12}$ \underline{Q} $\underline{1/68}$; $\underline{C12}$ \underline{R} $\underline{1/19}$; $\underline{G01}$ \underline{N} $\underline{33/50}$

ABSTRACTED-PUB-NO: DE 3112338C BASIC-ABSTRACT:

Prodn. of hybrid DNA (I) having the complementary genome corresp. to hepatitis A virus (HAV) is effected by producing double-stranded DNA (II) by reverse transcription of HAV RNA, and cloning the DNA in a bacterial plasmid.

- (II) is pref. produced by extracting RNA from HAV particles and incubating the RNA with AMV reverse transcriptase (AMV = avian myeloblastosis virus) in the presence of dATP, dGTP, dTTP and dCTP. The resulting cDNA is then inserted into E.coli plasmid pBR322 at the Pst.I site, and the hybrid plasmid is used to transform E. coli X 1776. The transformants are then cultured to produce HAV antigen, which can be used to prepare active vaccines or to produce antibodies for prepn. of passive vaccines.
- (I) can be used to prepare active or passive HAV vaccines or antigens for diagnostic purposes. ABSTRACTED-PUB-NO:

EP 61740A EQUIVALENT-ABSTRACTS:

Hybridisation probes (I) are used for the detection of hepatitis A virus (HAV).

(I) are obtd. by (a) producing cDNA by reverse transcription of viral RNA of HAV; (b) cloning the cDNA in an Escherichia coli plasmid; (c) transforming a bacterium with die plasmid; (d) selecting HAV- positive clones.

The selected clones are chosen to have an intensity of 2-3 fold, compared with the negative test background, in a ratio immune test.

EP 61740B

Prodn. of hybrid DNA (I) having the complementary genome corresp. to hepatitis A virus (HAV) is effected by producing double-stranded DNA (II) by reverse transcription of HAV RNA, and cloning the DNA in a bacterial plasmid.

(II) is pref. produced by extracting RNA from HAV particles and incubating the RNA with $\frac{AMV}{COSMO}$ reverse transcriptase (AMV = avian myeloblastosis virus) in the presence of dATP, dGTP, dTTP and dCTP. The resulting cDNA is then inserted into E.coli plasmid pBR322 at the Pst.I site, and the hybrid plasmid is used to transform E. coli X 1776. The transformants are then cultured to produce HAV antigen, which can be used to prepare active vaccines or to produce antibodies for

prepn. of passive vaccines.

(I) can be used to prepare active or passive HAV vaccines or antigens for diagnostic purposes. (18pp)

Full Title Citation Front Review Classification Date Reference Sequences Attachments	KunC Draw Desc Imag
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avian myeloblastosis adj 10 reverse transcriptae or amv adj1 reverse transcriptase or amv adj1 rt	7

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